

### Amendments to the Specification

Please amend the following paragraphs of the specification as indicated below, where underlining identifies added language and strikethrough identifies deleted language.

In paragraph [0064]:

[0064] If the pigment platelet of **FIG. 1** is irradiated with electromagnetic irradiation ~~10~~ in the near-infrared range (ca. 1  $\mu$ m), in the visible range (ca. 400 nm to 800 nm) or in the near-ultraviolet range (smaller than 400 nm), then in both the reflected electro-magnetic irradiation ~~11~~ and in the transmitted electromagnetic irradiation ~~12~~, diffraction patterns with constructive interference appear in selected spatial directions for selected frequencies and/or wave lengths of the incidental electromagnetic irradiation ~~10~~. The observer can perceive this, at least for optical frequencies and/or wave lengths, as an independent color imprint dependent from the angle of vision (the angle between the viewing direction and the pigment plane) of the pigment. For irradiation in the UV-range and in the IR-range, adequate sensors (e.g. a UV-camera resp. IR-camera) or visual aids (UV-glasses, IR-glasses) must be used to have the different "colors" in the UV and IR ranges made visible. Consequently, the pigment platelets as per invention can be used both for coloring in the visible area of the optical spectrum for decorative purposes as well as for security applications (authentication) that are not visible to the observer's naked eye, but by adequate UV or IR sources and adequate detectors, cameras, etc. which can be called upon for checking the authenticity of an object furnished with the pigment as per discovery.

In paragraph [0065]:

[0065] On the boundary layer **3**, on the basis of the difference in the refraction indices  $n_1$  and  $n_2$  of the carrier layer **2** resp. sealant layer **4**, a part of the incidental electromagnetic radiation ~~10~~ will be reflected as a first part ~~11~~ and transmitted as a second part ~~12~~. The reflectivity resp. transmissivity of the boundary layer **3** can be adjusted by the value of refraction indices **1** and  $n_2$ . Furthermore, the reflectivity and transmissivity can be adjusted by a metallic layer in the boundary layer **3** between the carrier layer **2** and the sealant layer **4**. A very thin metallic layer in the range of the boundary layer **3** is semi-permeable to electromagnetic irradiation, so that the pigment platelet as per invention operates as both reflecting and transmitting. This has the advantage that the pigment platelet can be used both as a print pigment on the surface and as a color-conferring pigment in the interior of transparent bodies. A sufficiently thick metallic layer in the boundary layer **3** (several atomic layers) effectuates, on the contrary, that the invention-accorded pigment platelet merely act reflectively, whereby, however, a higher intensity of the diffraction pattern in the reflecting electromagnetic wave arises.

In paragraph [0088]:

~~[0088] 10 incidental electromagnetic irradiation~~

In paragraph [0089]:

~~[0089] 11 reflected electromagnetic irradiation~~

In paragraph [0090]:

~~[0090] 12 transmitted electromagnetic radiation~~